

MR853-748

Serial Number: 10/724,551

Reply to Office Action dated 1 July 2005

**REMARKS/ARGUMENTS**

This case has been carefully reviewed and analyzed in view of the Office Action dated 1 July 2005. Responsive to the Office Action, Claims 11-16 and 18 have been amended for further prosecution with the other pending Claim. It is believed that with such amendment of Claims, there is a further clarification of their recitations.

In the Office Action, the Examiner objected to the earlier-filed Amendment of 5 May 2005 under 35 U.S.C. § 132(a) for introducing new matter by virtue of its newly-added Claims 11-13. The Examiner then rejected Claims 11-18 under both the first and second paragraphs of 35 U.S.C. § 112 specifically noting certain language to be objectionable. It is believed that the amendments hereby incorporated into the Claims now obviate the Examiner's concerns under 35 U.S.C. § 112, first and second paragraphs, and § 132(a).

Also in the Office Action, the Examiner rejected Claims 11-12 under 35 U.S.C. § 102(b) as being anticipated by the Oishi, et al. reference. The Examiner further rejected Claims 13-14 under 35 U.S.C. § 103(a) as being unpatentable over Oishi, et al. In setting forth the latter rejection, the Examiner acknowledged that the reference fails to explicitly teach facets being determined in the manner claimed but nonetheless concluded such to have been inherent in the reference's teaching of an echellette diffraction grating with a plurality of reflective facets.

MR853-748

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The Examiner also rejected Claims 15-16 under 35 U.S.C. § 103(a) as being unpatentable over Oishi, et al. in view of the Sappey, et al. reference. The Examiner further rejected Claims 17-18 under the same statutory section as being unpatentable over this same combination of references. In setting forth these rejections, the Examiner acknowledged that Oishi, et al. fails to explicitly teach a diffraction grating formed by a master, facets coated to increase reflectivity, or apertures provided by a single mode fiber and single mode slab waveguide. The Examiner, however, cited Sappey, et al. for disclosing these features and concluded that it would have been obvious to one of ordinary skill in the art to have incorporated such into the Oishi, et al. device.

Each of the pending independent Claims 11-13 has now been amended to clarify among its combination of features an "echelle structure" which comprises "a grating surface" that includes "a plurality of ... reflective facet portions selectively disposed in a non-constant period arrangement." As the Claims further clarify in this regard, "respective facets of at least a pair of" such "reflective facet portions" are "unequal in spacing and width dimensions."

The full combinations of these and other features now more clearly recited by Applicant's pending Claims is nowhere disclosed by the cited references. Note in this regard that Oishi, et al. discloses a diffraction grating whose surface is formed with repeating sets of grooves. While the grooves within one set form a pattern employing two kinds of grating constants, Oishi, et al. plainly prescribes

MR853-748

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the same patterned set of grating grooves to be “repetitively arranged at a constant period,” (column 5, lines 14-15; *see also* column 3, line 12, lines 39-40, Abstract). Thus, Oishi, et al. teaches away from any echelle structure whose grating surface includes “a plurality of ... reflective facet portions selectively disposed in a non-constant period arrangement,” let alone a structure wherein “respective facets of at least a pair of ... reflective facet portions ... [are] unequal in spacing and width dimensions,” as each of the newly-amended independent Claims 11-13 now clarifies.

The secondarily-cited Sappey, et al. reference is one whose echelle grating is quite periodic. The surface steps 22 in the disclosed grating are uniformly configured and arrayed. The reference fails to remedy the deficiencies of Oishi, et al.

It is respectfully submitted, therefore, that the Oishi, et al. and Sappey, et al. references, even when considered together, fail to disclose the unique combinations of features now more clearly recited by Applicant's pending Claims for the purposes and objectives disclosed in the subject Patent Application.

It is now believed that the subject Patent Application has been placed fully in condition for allowance, and such action is respectfully requested.

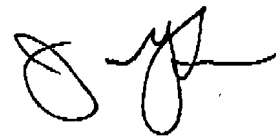
MR853-748

Serial Number: 10/724,551

Reply to Office Action dated 1 July 2005

No further fees are believed to be due with respect to the above-referenced matter. If there are any further charges associated with this filing, the Honorable Commissioner for Patents is hereby authorized to charge Deposit Account #18-2011 for such charges.

Respectfully submitted,  
For: ROSENBERG, KLEIN & LEE



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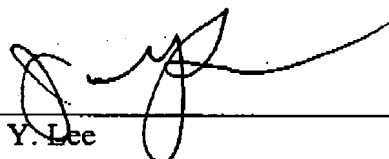
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